

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for [transforming] producing transgenic seed on a plant comprising the steps of:

- (a) contacting the meristematic tissue of the plant with a medium comprising DNA;
- (b) contacting an area of the plant below the meristematic tissue of step (a) with a positive lead of a power source;
- (c) contacting the medium comprising DNA with a negative lead of the power source; [and]
- (d) applying a low amperage current from the power source, thereby causing the DNA to migrate from the medium to the cells of the meristematic tissue of the plant; and
- (e) pollinating the transformed plant to produce fertile transformed seed on the transformed plant.

2. (Original) The method of Claim 1, wherein the plant is a dicot.

3. (Original) The method of Claim 2, wherein the plant is a soybean plant.

4. (Original) The method of Claim 1, wherein the plant is a monocot.

5. (Original) The method of Claim 1, wherein the plant is a seedling.

6. (Original) The method of Claim 1, wherein the DNA is a plasmid vector.

7. (Original) The method of Claim 6, wherein the plasmid vector is linearized.

8. (Original) The method of Claim 6, wherein the plasmid contains the gene for barley oxalic oxidase.

9. (Original) The method of Claim 1, wherein the current is about 0.01 to about 1.0 mA.
10. (Original) The method of Claim 1, wherein the current is about 0.1 to about 0.5 mA.
11. (Original) The method of Claim 1, wherein the meristematic tissue is an apical meristem.
12. (Original) The method of Claim 1, wherein the meristematic tissue is a lateral meristem.
13. (Original) The method of Claim 1, wherein the meristematic tissues is a meristematic dome.
14. (Original) The method of Claim 1, wherein the area of the plant below the meristematic tissue is a root.
15. (Original) The method of Claim 1, wherein the area of the plant below the meristematic tissue is a stem.
16. (Original) A transgenic plant produced by the method of Claim 1.
17. (Currently added) A transgenic plant produced from the transgenic seed of claim 1.
18. (Currently added) Transgenic seed set on a self-pollinated transgenic plant produced by the method of claim 1.
19. (Currently added) A homozygous plant produced from the transgenic seed of claim 18.